

1. **Introduction**  
 2. **Background**  
 3. **Methodology**  
 4. **Results**  
 5. **Discussion**  
 6. **Conclusion**  
 7. **References**  
 8. **Appendix**  
 9. **Index**  
 10. **Table of Contents**  
 11. **Abstract**  
 12. **Summary**  
 13. **Key Words**  
 14. **Keywords**  
 15. **Subject Headings**  
 16. **Classification**  
 17. **Indexing**  
 18. **Keywords**  
 19. **Subject Headings**  
 20. **Classification**  
 21. **Indexing**  
 22. **Keywords**  
 23. **Subject Headings**  
 24. **Classification**  
 25. **Indexing**  
 26. **Keywords**  
 27. **Subject Headings**  
 28. **Classification**  
 29. **Indexing**  
 30. **Keywords**  
 31. **Subject Headings**  
 32. **Classification**  
 33. **Indexing**  
 34. **Keywords**  
 35. **Subject Headings**  
 36. **Classification**  
 37. **Indexing**  
 38. **Keywords**  
 39. **Subject Headings**  
 40. **Classification**  
 41. **Indexing**  
 42. **Keywords**  
 43. **Subject Headings**  
 44. **Classification**  
 45. **Indexing**  
 46. **Keywords**  
 47. **Subject Headings**  
 48. **Classification**  
 49. **Indexing**  
 50. **Keywords**  
 51. **Subject Headings**  
 52. **Classification**  
 53. **Indexing**  
 54. **Keywords**  
 55. **Subject Headings**  
 56. **Classification**  
 57. **Indexing**  
 58. **Keywords**  
 59. **Subject Headings**  
 60. **Classification**  
 61. **Indexing**  
 62. **Keywords**  
 63. **Subject Headings**  
 64. **Classification**  
 65. **Indexing**  
 66. **Keywords**  
 67. **Subject Headings**  
 68. **Classification**  
 69. **Indexing**  
 70. **Keywords**  
 71. **Subject Headings**  
 72. **Classification**  
 73. **Indexing**  
 74. **Keywords**  
 75. **Subject Headings**  
 76. **Classification**  
 77. **Indexing**  
 78. **Keywords**  
 79. **Subject Headings**  
 80. **Classification**  
 81. **Indexing**  
 82. **Keywords**  
 83. **Subject Headings**  
 84. **Classification**  
 85. **Indexing**  
 86. **Keywords**  
 87. **Subject Headings**  
 88. **Classification**  
 89. **Indexing**  
 90. **Keywords**  
 91. **Subject Headings**  
 92. **Classification**  
 93. **Indexing**  
 94. **Keywords**  
 95. **Subject Headings**  
 96. **Classification**  
 97. **Indexing**  
 98. **Keywords**  
 99. **Subject Headings**  
 100. **Classification**  
 101. **Indexing**  
 102. **Keywords**  
 103. **Subject Headings**  
 104. **Classification**  
 105. **Indexing**  
 106. **Keywords**  
 107. **Subject Headings**  
 108. **Classification**  
 109. **Indexing**  
 110. **Keywords**  
 111. **Subject Headings**  
 112. **Classification**  
 113. **Indexing**  
 114. **Keywords**  
 115. **Subject Headings**  
 116. **Classification**  
 117. **Indexing**  
 118. **Keywords**  
 119. **Subject Headings**  
 120. **Classification**  
 121. **Indexing**  
 122. **Keywords**  
 123. **Subject Headings**  
 124. **Classification**  
 125. **Indexing**  
 126. **Keywords**  
 127. **Subject Headings**  
 128. **Classification**  
 129. **Indexing**  
 130. **Keywords**  
 131. **Subject Headings**  
 132. **Classification**  
 133. **Indexing**  
 134. **Keywords**  
 135. **Subject Headings**  
 136. **Classification**  
 137. **Indexing**  
 138. **Keywords**  
 139. **Subject Headings**  
 140. **Classification**  
 141. **Indexing**  
 142. **Keywords**  
 143. **Subject Headings**  
 144. **Classification**  
 145. **Indexing**  
 146. **Keywords**  
 147. **Subject Headings**  
 148. **Classification**  
 149. **Indexing**  
 150. **Keywords**  
 151. **Subject Headings**  
 152. **Classification**  
 153. **Indexing**  
 154. **Keywords**  
 155. **Subject Headings**  
 156. **Classification**  
 157. **Indexing**  
 158. **Keywords**  
 159. **Subject Headings**  
 160. **Classification**  
 161. **Indexing**  
 162. **Keywords**  
 163. **Subject Headings**  
 164. **Classification**  
 165. **Indexing**  
 166. **Keywords**  
 167. **Subject Headings**  
 168. **Classification**  
 169. **Indexing**  
 170. **Keywords**  
 171. **Subject Headings**  
 172. **Classification**  
 173. **Indexing**  
 174. **Keywords**  
 175. **Subject Headings**  
 176. **Classification**  
 177. **Indexing**  
 178. **Keywords**  
 179. **Subject Headings**  
 180. **Classification**  
 181. **Indexing**  
 182. **Keywords**  
 183. **Subject Headings**  
 184. **Classification**  
 185. **Indexing**  
 186. **Keywords**  
 187. **Subject Headings**  
 188. **Classification**  
 189. **Indexing**  
 190. **Keywords**  
 191. **Subject Headings**  
 192. **Classification**  
 193. **Indexing**  
 194. **Keywords**  
 195. **Subject Headings**  
 196. **Classification**  
 197. **Indexing**  
 198. **Keywords**  
 199. **Subject Headings**  
 200. **Classification**  
 201. **Indexing**  
 202. **Keywords**  
 203. **Subject Headings**  
 204. **Classification**  
 205. **Indexing**  
 206. **Keywords**  
 207. **Subject Headings**  
 208. **Classification**  
 209. **Indexing**  
 210. **Keywords**  
 211. **Subject Headings**  
 212. **Classification**  
 213. **Indexing**  
 214. **Keywords**  
 215. **Subject Headings**  
 216. **Classification**  
 217. **Indexing**  
 218. **Keywords**  
 219. **Subject Headings**  
 220. **Classification**  
 221. **Indexing**  
 222. **Keywords**  
 223. **Subject Headings**  
 224. **Classification**  
 225. **Indexing**  
 226. **Keywords**  
 227. **Subject Headings**  
 228. **Classification**  
 229. **Indexing**  
 230. **Keywords**  
 231. **Subject Headings**  
 232. **Classification**  
 233. **Indexing**  
 234. **Keywords**  
 235. **Subject Headings**  
 236. **Classification**  
 237. **Indexing**  
 238. **Keywords**  
 239. **Subject Headings**  
 240. **Classification**  
 241. **Indexing**  
 242. **Keywords**  
 243. **Subject Headings**  
 244. **Classification**  
 245. **Indexing**  
 246. **Keywords**  
 247. **Subject Headings**  
 248. **Classification**  
 249. **Indexing**  
 250. **Keywords**  
 251. **Subject Headings**

one n

receiving an incoming voice message; and

5

2. The method of claim 1 wherein said CPE is at least one of a telephone set, a

3. The method of claim 1 wherein said local CPE receives at least one ring tone

4. The method of claim 1 further comprising the step of transmitting an outgoing

5. The method of claim 1 wherein said broadcasting step includes paging said at

6. The method of claim 1 wherein said broadcasting step includes transmitting

7. The method of claim 1 wherein said network includes at least one of a

8. The method of claim 1 further comprising the step of said at least one remote CPE delivering said voice message to a speaker device.

9. The method of claim 1 further comprising the step of said at least one remote CPE storing said voice message.

10. The method of claim 1 wherein said voice message is a call announce identification message .

11. The method of claim 10 wherein said call announce identification message is generated by at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

12. The method of claim 1 further comprising the step of receiving a data message instructing said CPE to go off-hook prior to said CPE going off-hook.

13. The method of claim 12 wherein said data message is a frequency shift keying (FSK) signal.

14. A method broadcasting incoming call information from a local CPE to at least one remote CPE, said method comprising the steps of:  
receiving incoming caller data at said local CPE;  
determining, at said local CPE, a corresponding voice message as a function of at least a portion of said incoming caller data; and  
broadcasting, using said local CPE, said voice message over a communications network to said at least one remote CPE.

15. The method of claim 14 wherein said CPE is at least one of a telephone set, a telephone answering device (TAD), a digital telephone answering device (DTAD), and a voice mail device.

16. The method of claim 14 wherein said local CPE receives at least one ring tone from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server prior to receiving said incoming caller data.

17. The method of claim 14 wherein said incoming caller data is one of calling line identification (CLID) data and second call waiting identification (SCWID) data.

18. The method of claim 14 wherein said local CPE receives said incoming caller data from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

19. The method of claim 14 wherein said incoming caller data is received as at least one of a frequency shift keying (FSK) signal, a Multipurpose Internet Mail Extension (MIME) format message, a Hypertext Markup Language (HTML) format message, a Java format message, a Javascript message and/or an Active X format message.

20. The method of claim 14 wherein said determining step includes parsing a number field derived from said FSK signals, and selecting sounds corresponding to said parsed number field.

21. The method of claim 14 wherein said determining step includes matching data derived from said FSK signals to associated voice tags.

22. The method of claim 14 wherein said broadcasting step includes paging said at least one remote CPE.

23. The method of claim 14 wherein said broadcasting step includes transmitting said voice message over a paging channel.

24. The method of claim 14 wherein said network includes at least one of a VentureNet, a Ethernet, a "blue tooth" network, a X.10 network, a personal computer (PC) network, and a wireless network.

25. The method of claim 14 further comprising the step of said at least one remote CPE delivering said voice message to a speaker device.

26. The method of claim 14 further comprising the step of said at least one remote CPE storing said voice message.

27. A method of broadcasting incoming call information from a local CPE to at least one remote CPE, said method comprising the steps of:

receiving, at said local CPE, incoming caller data;  
broadcasting, using said local CPE, said voice message over a communications network to said at least one remote CPE; and  
determining, at said remote CPE, a corresponding voice message as a function of at least a portion of said incoming caller data.

28. The method of claim 27 wherein said CPE is at least one of a telephone set, a telephone answering device (TAD), digital telephone answering device (DTAD), and a voice mail device.

29. The method of claim 27 wherein said local CPE receives at least one ring tone from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server prior to receiving said incoming caller data.

30. The method of claim 27 wherein said incoming caller data is one of calling line identification (CLID) data and second call waiting identification (SCWID) data.

31. The method of claim 27 wherein said local CPE receives said incoming caller data from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

32. The method of claim 27 wherein said incoming caller data is received as at least one of a frequency shift keying (FSK) signal, a Multipurpose Internet Mail Extension (MIME) format message, a Hypertext Markup Language (HTML) format message, a Java format message, a Javascript message and/or an Active X format message.

33. The method of claim 27 wherein said determining step includes parsing a number field derived from said FSK signals, and selecting sounds corresponding to said parsed number field.

34. The method of claim 27 wherein said determining step includes matching data derived from said FSK signals to associated voice tags

35. The method of claim 27 wherein said network includes at least one of a VentureNet, a Ethernet, a "blue tooth" network, a X.10 network, a personal computer (PC) network, and a wireless network.

36. The method of claim 27 further comprising the step of said at least one remote CPE delivering said voice message to a speaker device.

37. The method of claim 27 further comprising the step of said at least one remote CPE storing said voice message.

38. A method of announcing incoming call information using on-hook customer premises equipment (CPE), said method comprising the steps of:

receiving an indication of an incoming CPE alerting signal (CAS) tone;

detecting a frequency shift keying (FSK) signal as a result of receiving said

5 indication;

determining a corresponding voice message as a function of at least a portion of said FSK signal; and

announcing said voice message.

39. The method of claim 38 wherein said indication is said CAS tone.

40. The method of claim 38 wherein said indication is at least one of an on-hook pulse, a muting and a reduced volume, and said method further comprises the steps of:

detecting the CAS tone using another CPE that is currently off-hook;

generating, for a predetermined duration, said on-hook pulse, muting or reduced volume from the another CPE when the CAS tone is detected by the another CPE; and

detecting, by the on-hook CPE, the on-hook pulse, muting or reduced volume generated by the another CPE.

41. The method of claim 38 wherein said determining step includes parsing a number field derived from said FSK signals, and selecting sounds corresponding to said parsed number field.

42. The method of claim 38 wherein said determining step includes matching data derived from said FSK signals to associated voice tags

43. The method of claim 38 wherein said determining step includes the steps of: taking said CPE off-hook, and receiving a voice message.

44. The method of claim 38 wherein said announcing step includes delivering said voice message to a speaker device.

45. An apparatus located at a local CPE for broadcasting incoming call information to at least one remote CPE, said apparatus comprising:

means for receiving an incoming voice message; and

means for broadcasting said incoming voice message over a communications network to said at least one remote CPE.

46. The apparatus of claim 45 wherein said CPE is at least one of a telephone set, a telephone answering device (TAD), digital telephone answering device (DTAD), and a voice mail device.

47. The apparatus of claim 45 further comprising means for said local CPE receiving said at least one ring tone from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server prior to taking said local CPE off-hook.

48. The apparatus of claim 45 further comprising means for transmitting an outgoing voice message after taking said CPE off-hook.

49. The apparatus of claim 45 wherein said broadcasting means includes means for paging said at least one remote CPE.

50. The apparatus of claim 45 wherein said broadcasting means includes means for transmitting said voice message over a paging channel.

51. The apparatus of claim 45 wherein said network includes at least one of a VentureNet, a Ethernet, a "blue tooth" network, a X.10 network, a personal computer (PC) network, and a wireless network.

52. The apparatus of claim 45 further comprising means for said at least one remote CPE delivering said voice message to a speaker device.

53. The apparatus of claim 45 further comprising means for said at least one remote CPE storing said voice message.

54. The apparatus of claim 45 wherein said voice message is a call announce identification message .

55. The apparatus of claim 54 wherein said call announce identification message is generated by at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

56. The apparatus of claim 45 further comprising means for receiving a data message instructing said CPE to go off-hook prior to said CPE going off-hook.

57. The apparatus of claim 56 wherein said data message is a frequency shift keying (FSK) signal.

58. An apparatus located at a local CPE for broadcasting incoming call information to at least one remote CPE, said apparatus comprising:  
means for receiving incoming caller data at said local CPE;  
means for determining, at said local CPE, a corresponding voice message as a function of at least a portion of said incoming caller data; and  
means for broadcasting, using said local CPE, said voice message over a communications network to said at least one remote CPE.

59. The apparatus of claim 58 wherein said CPE is at least one of a telephone set, a telephone answering device (TAD), a digital telephone answering device (DTAD), and a voice mail device.



60. The apparatus of claim 58 further comprising means for said local CPE receiving said at least one ring tone from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server prior to said local CPE receiving incoming caller data.

61. The apparatus of claim 58 wherein said incoming caller data is one of calling line identification (CLID) data and second call waiting identification (SCWID) data.

62. The apparatus of claim 58 wherein said local CPE receives said incoming caller data from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

63. The apparatus of claim 58 wherein said incoming caller data is received as at least one of a frequency shift keying (FSK) signal, a Multipurpose Internet Mail Extension (MIME) format message, a Hypertext Markup Language (HTML) format message, a Java format message, a Javascript message and/or an Active X format message.

64. The apparatus of claim 58 wherein said determining means includes means for parsing a number field derived from said FSK signals, and means for selecting sounds corresponding to said parsed number field.

65. The apparatus of claim 58 wherein said determining means includes means for matching data derived from said FSK signals to associated voice tags.

66. The apparatus of claim 58 wherein said broadcasting means includes means for paging said at least one remote CPE.

67. The apparatus of claim 58 wherein said broadcasting means includes means for transmitting said voice message over a paging channel.

68. The apparatus of claim 58 wherein said network includes at least one of a VentureNet, a Ethernet, a "blue tooth" network, a X.10 network, a personal computer (PC) network, and a wireless network.

69. The apparatus of claim 58 further comprising means for said at least one remote CPE delivering said voice message to a speaker device.

70. The apparatus of claim 58 further comprising means for said at least one remote CPE storing said voice message.

71. An apparatus for broadcasting incoming call information from a local CPE to at least one remote CPE, said apparatus comprising:

means for receiving, at said local CPE, incoming caller data;  
means for broadcasting, using said local CPE, said voice message over a communications network to said at least one remote CPE; and  
means for determining, at said remote CPE, a corresponding voice message as a function of at least a portion of said incoming caller data.

72. The apparatus of claim 71 wherein said CPE is at least one of a telephone set, a telephone answering device (TAD), digital telephone answering device (DTAD), and a voice mail device.

73. The apparatus of claim 71 further comprising means for said local CPE receiving said at least one ring tone from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server prior to said local CPE receiving said incoming caller data.

74. The apparatus of claim 71 wherein said incoming caller data is one of calling line identification (CLID) data and second call waiting identification (SCWID) data.

75. The apparatus of claim 71 wherein said local CPE receives said incoming caller data from at least one of a central office (CO) switch, a voice over Internet protocol (VOIP) server, and an Internet service provider (ISP) server.

76. The apparatus of claim 71 wherein said incoming caller data is received as at least one of a frequency shift keying (FSK) signal, a Multipurpose Internet Mail Extension (MIME) format message, a Hypertext Markup Language (HTML) format message, a Java format message, a Javascript message and/or an Active X format message.

77. The apparatus of claim 71 wherein said determining means includes means for parsing a number field derived from said FSK signals, and means for selecting sounds corresponding to said parsed number field.

78. The apparatus of claim 71 wherein said determining means includes means for matching data derived from said FSK signals to associated voice tags

79. The apparatus of claim 71 wherein said network includes at least one of a VentureNet, a Ethernet, a "blue tooth" network, a X.10 network, a personal computer (PC) network, and a wireless network.

80. The apparatus of claim 71 further comprising means for said at least one remote CPE delivering said voice message to a speaker device.

81. The apparatus of claim 71 further comprising means for said at least one remote CPE storing said voice message.

82. An apparatus for announcing incoming call information at on-hook customer premises equipment (CPE), said apparatus comprising:

means for receiving an indication of an incoming CPE alerting signal (CAS) tone;

means for detecting a frequency shift keying (FSK) signal as a result of receiving said  
5 indication;

means for determining a corresponding voice message as a function of at least a  
portion of said FSK signal; and

means for announcing said voice message.

83. The apparatus of claim 82 wherein said indication is said CAS tone.

84. The apparatus of claim 82 wherein said indication is at least one of an on-hook  
pulse, a muting and a reduced volume, and said apparatus further comprises:

means for detecting the CAS tone using another CPE that is currently off-hook;

means for generating, for a predetermined duration, said on-hook pulse, muting or  
reduced volume from the another CPE when the CAS tone is detected by the another CPE;  
and

means for detecting, by the on-hook CPE, the on-hook pulse, muting or reduced  
volume generated by the another CPE.

85. The apparatus of claim 82 wherein said determining means includes means for  
parsing a number field derived from said FSK signals, and selecting sounds corresponding to  
said parsed number field.

86. The apparatus of claim 82 wherein said determining means includes means for  
matching data derived from said FSK signals to associated voice tags

87. The apparatus of claim 82 wherein said determining means includes means for  
taking said CPE off-hook, and means for receiving a voice message.

88. The apparatus of claim 82 wherein said announcing means includes means for  
delivering said voice message to a speaker device.



94. The apparatus of claim 89 wherein said processor is further configured to take  
PE off-hook and receive a voice message.

95. The apparatus of claim 89 wherein said processor is further configured to for deliver said voice message to said speaker.

96. The apparatus of claim 89 wherein said processor is one of a microprocessor, an application specific integrated circuit (ASIC), a programmable logic array (PLA), and a reduced instruction set chip (RISC).

97. The apparatus of claim 91 wherein said further processor is one of a microprocessor, an application specific integrated circuit (ASIC), a programmable logic array (PLA), and a reduced instruction set chip (RISC).

- 27 -